

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number
WO 2004/044487 A3

(51) International Patent Classification⁷: G02B 5/22, H01J 61/40, C09D 7/02, 183/04, C09B 67/00, C03C 17/00, G02B 5/22, F21V 9/08

(21) International Application Number:
PCT/IB2003/004753

(22) International Filing Date: 27 October 2003 (27.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02079742.9 14 November 2002 (14.11.2002) EP
03075078.0 13 January 2003 (13.01.2003) EP

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BROERSMA, Rémy, C. [NL/FR]; c/o Prof. Holstlaan 6, NL-5656 AA

Eindhoven (NL). DREUNING, Hendrik-Jan [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). HENDRIKS, Rene, J. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

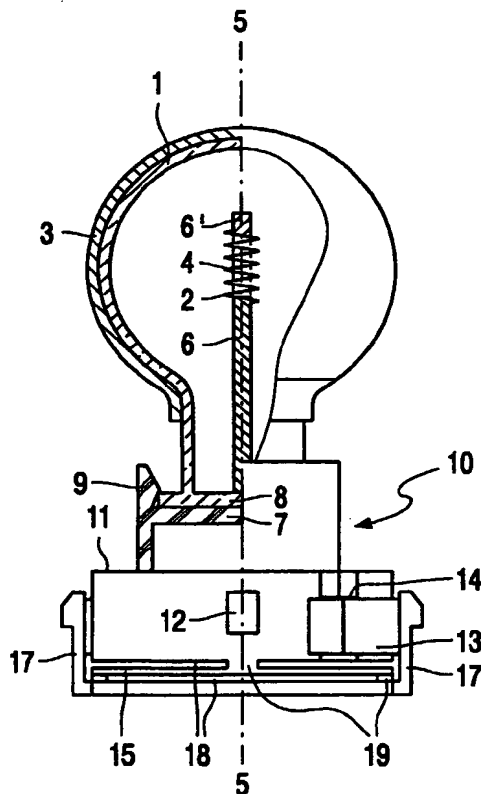
(74) Agent: VAN WERMESKERKEN, Stephanie, C.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: LIGHT-TRANSMITTING SUBSTRATE PROVIDED WITH A LIGHT-ABSORBING COATING AS WELL AS A METHOD OF PREPARING A LIGHT-ABSORBING COATING



(57) Abstract: Disclosed is a light-transmitting substrate that is at least partly provided with a light-absorbing coating. The light-absorbing coating comprises stabilized pigments, which are incorporated in a sol-gel matrix. The coating at least comprises an organic pigment and that an aminosilane is present in order to stabilize the pigments. Moreover, an electric lamp comprising a light-transmitting lamp vessel that accommodates a light source is disclosed. Said lamp vessel comprises the above light-transmitting substrate.



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT,
RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Declaration under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE,*

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) **Date of publication of the international search report:**
17 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Rec'd PCT/PTO 10 MAY 2005

International Application No
PCT/IB 03/04753

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G02B5/22 H01J61/40 C09D7/02 C09D183/04 C09B67/00
C03C17/00 G02B5/22 F21V9/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09D C09B C03C G02B F21V

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 731 091 A (JONSCHKER GERHARD ET AL) 24 March 1998 (1998-03-24)	1,2,6
Y	column 2, line 15 - line 22 column 2, line 58 - line 67 column 3, line 43 - line 47	3-5,7
X	EP 1 052 230 A (TOYO INK MFG CO) 15 November 2000 (2000-11-15) paragraph '0001! paragraph '0017! - paragraph '0021! paragraph '0042! - paragraph '0043! paragraph '0049! - paragraph '0050! example 1	1,2,6

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

27 December 2004

Date of mailing of the international search report

05/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Matthijssen, J-J

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/04753

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 1 125 998 A (ICHIKO INDUSTRIES LTD) 22 August 2001 (2001-08-22)	3-5,7
A	paragraph '0001! paragraph '0017! - paragraph '0018! paragraph '0026! - paragraph '0027! paragraph '0030! -----	1,2,6
Y	WO 01/20641 A (KONINKL PHILIPS ELECTRONICS NV) 22 March 2001 (2001-03-22)	3-5,7
A	cited in the application page 2, line 9 - line 14 page 3, line 28 - line 30 page 4, line 24 - line 30 example 1 -----	1,2,6

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/04753

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5731091	A	24-03-1998	DE 4338360 A1 DE 59405731 D1 WO 9513249 A1 EP 0729442 A1 JP 9504768 T	11-05-1995 20-05-1998 18-05-1995 04-09-1996 13-05-1997
EP 1052230	A	15-11-2000	JP 2000303025 A EP 1052230 A1	31-10-2000 15-11-2000
EP 1125998	A	22-08-2001	JP 2001226631 A CN 1310211 A EP 1125998 A2 US 2001020812 A1	21-08-2001 29-08-2001 22-08-2001 13-09-2001
WO 0120641	A	22-03-2001	CN 1321329 T WO 0120641 A1 EP 1129470 A1 JP 2003509825 T US 6819049 B1	07-11-2001 22-03-2001 05-09-2001 11-03-2003 16-11-2004